

WHAT IS CLAIMED IS:

1. In a communication system adapted for communicating information in one or more time slots within a predetermined bandwidth, wherein at least one of the time slots includes at least two subslots that are non-overlapping in frequency,
- 5 a method comprising:
- communicating information, by at least one communication unit, in a selected one or more of the subslots.
2. The method of claim 1 comprising:
- 10 transmitting information in a first one of the subslots by a first communication unit; and
- transmitting information in a second one of the subslots by a second communication unit.
3. The method of claim 1 comprising transmitting, by the at least one communication unit, information in a plurality of the subslots.
- 15 4. The method of claim 3 wherein the communication unit communicates identical information in each of the plurality of the subslots thereby increasing the probability of the information reaching a receiver.
- 20 5. The method of claim 1, wherein the at least two subslots include two subslots that are adjacent in frequency.
6. The method of claim 1, wherein the predetermined bandwidth is 100 kHz, the at least two subslots comprising a first and second subslot each having a 50 kHz bandwidth.
- 25 7. The method of claim 1, wherein the at least two subslots include three subslots that are adjacent in frequency.
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8. The method of claim 1, wherein the predetermined bandwidth is 150 kHz, the at least two subslots comprising a first, second and third subslot each having a 50 kHz bandwidth.

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9. The method of claim 1 comprising, prior to the step of communicating information in a selected one or more of the subslots:

randomly choosing, by the at least one communication unit, one or more of the subslots, thereby defining the selected one or more of the subslots.

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10. The method of claim 1 wherein the step of communicating information comprises:

transmitting information in a first number of subslots by a first communication unit having a first priority; and

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transmitting information in a second number of subslots by a second communication unit having a second priority.

11. The method of claim 10 wherein the first number is greater than the second number if the first priority is higher than the second priority.

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12. An apparatus for sending information over a communication channel that has been divided into time slots, the apparatus comprising:

a transmitter operable to transmit information in a selected one or more of a plurality of subslots into which at least one of the time slots has been divided

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such that the subslots are non-overlapping in frequency.

13. The apparatus of claim 12 further comprising:

a symbol insertion element operable to format the information to fit into the selected one or more of the plurality of subslots, yielding formatted

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information which is then forwarded to the transmitter.

14. The apparatus of claim 12 wherein the transmitter randomly selects the one or more of the plurality of subslots to transmit in.

5 15. The apparatus of claim 12 wherein the transmitter uses a multiple subchannel signal to transmit the information in the one or more selected subslots.

10 16. The apparatus of claim 12 wherein the transmitter sends identical information in a plurality of subslots to increase the probability that the information will be received by a receiver.

15 17. The apparatus of claim 12 wherein the transmitter is selected from the group consisting of wireless radio units, cellular radio/telephones, wireless modems, computer modems, cable modems, satellite transmitters, satellite ground stations and fiber optic repeaters.

20 18. A apparatus for obtaining information sent over a communication channel that is divided into time slots, at least one time slot comprising a plurality of subslots that are non-overlapping in frequency, the apparatus comprising:
a receiver operable to receive information in one or more of the plurality of subslots.

25 19. The apparatus of claim 18 further comprising a demultiplexer that deformats synchronization, pilot and data symbols from the information received in the one or more of the plurality of subslots.

20. The apparatus of claim 18 wherein the receiver is adapted to demodulate a multiple subchannel signal.